

Amendments To The Claims:

1. (Currently Amended) An implantable graft comprising:

a flat-woven tubular portion having opposed first and second tubular ends with a contiguous generally spherical bulbous woven section therebetween, wherein said woven portions of said first tubular end, said second tubular end and said bulbous woven section are seamlessly transitioned, said bulbous woven section having opposed first and second open ends, the first bulbous end being contiguous with said first tubular end, said second bulbous end being contiguous with said second tubular end, the first tubular end having a first number of warp yarns interlaced with a plurality of fill yarns in a woven pattern to define a first flat-woven tubular diameter, the second end having a second number of warp yarns interlaced with said plurality of fill yarns in a woven pattern to define a second flat-woven tubular diameter, and said bulbous section having a third number of warp yarns interlaced with said plurality of fill yarns in a woven pattern to define a third flat-woven tubular diameter, wherein the first bulbous end includes a textile portion having an increased number of warp yarns at the rate of greater than three ~~at least three or more~~ warp yarns for every two of said fill yarns, while the second bulbous end includes a textile portion having a decreasing number of warp yarns at the rate of at least three warp yarns or greater for every two of said fill yarns;

wherein said third number of warp yarns is greater than either of said first or said second number of warp yarns; and further wherein said third number of warps yarns are engagingly interlaced at said first bulbous end and disengagingly interlaced at second bulbous end to provide a seamless implantable graft having a third diameter being greater than either of said first or said second diameters;

said bulbous woven section further being radially crimped and said first and second tubular ends being free from crimps, said woven pattern of said bulbous woven section being different from said woven pattern of said first and second tubular ends, and said bulbous woven section comprising a different yarn type than either of said first and second tubular ends, wherein said yarn type is selected from the group consisting of multifilament, monofilament, and staple.

2. (Original) The implantable graft of claim 1, wherein said second number of warp yarns is equal to said first number of warp yarns.
3. (Original) The implantable graft of claim 1, wherein said second diameter is equal to said first diameter.
4. (Original) The implantable graft of claim 1, wherein said third diameter is from about 2 mm to about 20 mm greater than said first or said second diameter.
5. (Original) The implantable graft of claim 4, wherein said first diameter or said second diameter is from about 10 mm to about 50 mm.
6. (Original) The implantable graft of claim 1, wherein said woven patterns of said first tubular end, said second tubular end and said bulbous section are selected from the group consisting of a plain weave, a basket weave, a twill weave, a velour weave, a double velour weave, satin weave, terry weave and combinations thereof.
7. (Canceled)
8. (Canceled)
9. (Original) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section have a different yarn density.
10. (Original) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section have a same yarn density.
11. (Original) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section have a different yarn denier.

denier.

12. (Original) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section have a same yarn denier.

13. (Canceled)

14. (Canceled)

15. (Original) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section has a different yarn material wherein the different yarn material is selected from the group consisting of polyester, polypropylene, polyethylene, polyurethane, polytetrafluoroethylene and combinations thereof.

16. (Previously Presented) The implantable graft of claim 1, wherein at least one of said woven portions of said first tubular end, said second tubular end and said bulbous section have a same yarn material wherein the same yarn material is selected from the group consisting of polyester, polypropylene, polyurethane, polytetrafluoroethylene and combinations thereof.

17. (Canceled)

18. (Original) The implantable graft of claim 1, wherein said warp yarns and said fill yarns are polymeric yarns.

19. (Original) The implantable graft of claim 1, wherein said warp yarns and said fill yarns include materials selected from the group consisting of polyester, polypropylene, polyethylene, polyurethane, polytetrafluoroethylene and combinations thereof.

20. (Previously Presented) The implantable graft of claim 1, wherein said warp yarns of said bulbous section are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27

27 filament, twisted set polyester; or combinations thereof.

21. (Previously Presented) The implantable graft of claim 1, wherein said fill yarns of said bulbous section are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27 filament, twisted set polyester; or combinations thereof.

22. (Canceled)

23. (Canceled)

24. (Original) The implantable graft of claim 1, wherein said bulbous section has opposed edges and the additional warp yarns are threadingly engaged and disengaged at said edges.

25. (Original) The implantable graft of claim 1, wherein the additional warp yarns are threadingly engaged at different longitudinal locations along a length of said first bulbous end and further wherein the additional warp yarns are threadingly disengaged at different longitudinal locations along a length of said second bulbous end.

26. (Original) The implantable graft of claim 1, wherein the additional warp yarns are threadingly engaged at different radial locations along a width of said first bulbous end and further wherein the additional warp yarns are threadingly disengaged at different radial locations along a width of said second bulbous end.

27. (Canceled)

28. (Canceled)

29. (Canceled)

30. (Previously Presented) The implantable graft of claim 1, further comprising a mechanical or

or tissue heart valve securably attached to said second tubular end.

31. (Previously Presented) The implantable graft of claim 1, wherein said first tubular end or said second tubular end is a multi-lumen tubular structure.

32. (Currently Amended) An implantable, flat-woven graft comprising:

a hollow tubular woven portion having opposed tubular ends and opposed flat-woven edges, said woven portion having a number of warp yarns interlaced with a number of fill yarns in a flat-woven tubular woven pattern to define a flat-woven tubular diameter; and

a generally spherical bulbous woven portion having a greater number of warp yarns interlaced with said fill yarns in a flat-woven tubular bulbous pattern contiguously woven between said opposed ends, wherein said woven portions of said opposed tubular ends, and said bulbous woven portion are seamlessly transitioned, the first bulbous end including a textile portion having an increased number of warp yarns at the rate of greater than three ~~at least three or more~~ warp yarns for every two of said fill yarns, while the second bulbous end includes a textile portion having a decreasing number of warp yarns at the rate of at least three warp yarns or greater for every two of said fill yarns, wherein the greater number of warp yarns are threadingly engaged and disengaged with said fill yarns at different spaced-apart locations from the edges along the width of said graft at said bulbous woven portion to define a flat-woven bulbous diameter; said bulbous woven portion being radially crimped and said hollow tubular woven portion being free from crimps; said pattern of said bulbous woven portion being different from said pattern of said hollow tubular woven portion.

33. (Original) The implantable graft of claim 32, wherein said bulbous diameter is from about 2 mm to about 20 mm greater than said tubular diameter.

34. (Original) The implantable graft of claim 33, wherein said tubular diameter is from about 10 mm to about 50 mm.

35. (Original) The implantable graft of claim 32, wherein said tubular woven pattern and said

bulbous woven pattern are selected from the group consisting a plain weave, a basket weave, a twill weave, a velour weave, a double velour weave, satin weave, terry weave, and combinations thereof.

36. (Canceled)

37. (Canceled)

38. (Original) The implantable graft of claim 32, wherein said warp yarns and said fill yarns are polymeric yarns.

39. (Original) The implantable graft of claim 32, wherein said warp yarns and said fill yarns include materials selected from the group consisting of polyester, polypropylene, polyethylene, polyurethane, polytetrafluoroethylene and combinations thereof.

40. (Previously Presented) The implantable graft of claim 32, wherein said warp yarns of said bulbous woven pattern are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27 filament, twisted set polyester; or combinations thereof.

41. (Previously Presented) The implantable graft of claim 32, wherein said fill yarns of said bulbous woven pattern are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27 filament, twisted set polyester; or combinations thereof.

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Canceled)

47. (Previously Presented) The implantable graft of claim 32, wherein said increasing number of warp yarns are introduced at different longitudinal locations along said woven portion.

48. (Previously Presented) The implantable graft of claim 32, wherein said decreasing number of warp yarns are removed at different longitudinal locations along said woven portion.

49. (Currently Amended) An implantable graft comprising:

a flat-woven tubular portion having opposed first and second tubular ends with a generally spherical contiguous bulbous seamlessly woven section therebetween, said bulbous woven section having opposed first and second open ends, the first bulbous end being contiguous with said first tubular end, said second bulbous end being contiguous with said second tubular end, wherein said woven portions of said tubular end, said second tubular end and said bulbous woven section are seamlessly transitioned, the first tubular end having a first number of polymeric warp yarns interlaced with a plurality of polymeric fill yarns in a woven pattern to define a first flat-woven tubular diameter and a first woven length, the second end having a second number of polymeric warp yarns interlaced with said plurality of polymeric fill yarns in a woven pattern to define a second flat-woven tubular diameter and a second woven length, and said bulbous section having a third number of warp yarns interlaced with said plurality of fill yarns in a woven pattern to define a third flat-woven tubular diameter and a third woven length;

wherein said third number of warp yarns is greater than either of said first or said second number of warp yarns to define an additional number of warp yarns; and further wherein said third number of warps yarns are engagingly interlaced at the rate of greater than three ~~at least three or more~~ warp yarns for every two of said fill yarns at said first bulbous end and disengagingly interlaced at the rate of greater than three warp yarns for every two of said fill yarns at said second bulbous end to provide a seamless implantable graft having a third diameter being greater than either of said first or said second diameters;

said woven pattern of said bulbous woven section being different from said woven pattern of

of said first and second tubular ends.

50. (Original) The implantable graft of claim 49, wherein said second number of warp yarns is equal to said first number of warp yarns.

51. (Original) The implantable graft of claim 49, wherein said second diameter is equal to said first diameter.

52. (Original) The implantable graft of claim 49, wherein said third diameter is from about 2 mm to about 20 mm greater than said first or said second diameter.

53. (Original) The implantable graft of claim 51, wherein said first diameter or said second diameter is from about 10 mm to about 50 mm.

54. (Original) The implantable graft of claim 49, wherein said third length is greater or equal to the length represented by said first diameter.

55. (Original) The implantable graft of claim 49, wherein said woven patterns of said first tubular end, said second tubular end and said bulbous section are selected from the group consisting of a plain weave, a basket weave, a twill weave, a velour weave, a double velour weave, satin weave, terry weave, and combinations thereof.

56. (Canceled)

57. (Canceled)

58. (Canceled)

59. (Original) The implantable graft of claim 49, wherein said warp yarns and said fill yarns include materials selected from the group consisting of polyester, polypropylene, polyethylene,

polyurethane, polytetrafluoroethylene and combinations thereof.

60. (Previously Presented) The implantable graft of claim 49, wherein said warp yarns of at least one of said tubular portion, first tubular end, and second tubular end are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27 filament, twisted set polyester; or combinations thereof.

61. (Previously Presented) The implantable graft of claim 49, wherein said fill yarns of at least one of said tubular portion, first tubular end, and second tubular end are single ply, 70 denier, 54 filament, twisted flat polyester; double ply, 40 denier, 27 filament, twisted set polyester; or combinations thereof.

62. (Previously Presented) The implantable graft of claim 49, wherein said additional third number of warp yarns are threadingly engaged at edges of said first bulbous end and threadingly disengaged at edges of said second bulbous end.

63. (Previously Presented) The implantable graft of claim 49, wherein said additional third number of warp yarns are threadingly engaged at spaced apart locations across a width of said first bulbous end and threadingly disengaged at spaced apart locations across a width of said second bulbous end.

64. (Previously Presented) The implantable graft of claim 49, wherein said additional third number of wrap yarns are threadingly engaged at spaced apart locations along a longitudinal length of said first bulbous end and threadingly disengaged at spaced apart locations along a longitudinal length of said second bulbous end.

65-78. (Canceled)

79. (Currently Amended) An implantable prosthesis comprising:
a first hollow tubular woven portion having a number of warp yarns interlaced with a first

number of fill yarns in a flat-woven tubular woven pattern to define a flat-woven tubular diameter;

a generally spherical bulbous woven portion seamlessly transitioned from said first woven section, said bulbous woven section having a greater number of warp yarns interlaced with said fill yarns in a flat-woven tubular bulbous pattern, said bulbous woven portion including a first bulbous end and a second bulbous end, said first bulbous end including a textile portion having an increased number of warp yarns at the rate of ~~at least three or more~~ than three warp yarns for every two of said fill yarns, the second bulbous end including a textile portion having a decreasing number of warp yarns at the rate of at least three warp yarns or greater for every two of said fill yarns; and

a third hollow tubular woven portion seamlessly transitioned from said bulbous portion, said third woven portion having a third number of warp yarns interlaced with said number of fill yarns in a flat-woven tubular pattern to define a third flat-woven tubular diameter, wherein said greater number of warp yarns of said bulbous portion is greater than said first or said third number of warp yarns;

said woven pattern of said bulbous woven portion comprises a terry weave and said woven pattern of said first and third hollow tubular woven portions comprises a woven pattern selected from the group consisting of a plain weave, basket weave, twill weave, velour weave, double velour weave, satin weave, and combinations thereof.

80. (Canceled)

81. (Canceled)

82. (Previously Presented) The implantable graft of claim 1, wherein said third number of warp yarns includes a varying number of warp yarns.

83. (Canceled)

84. (Canceled)

85. (Previously Presented) The implantable graft of claim 32, wherein said greater number of warp yarns includes a varying number of warp yarns.

86. (Canceled)

87. (Canceled)

88. (Previously Presented) The implantable graft of claim 49, wherein said third number of warp yarns includes a varying number of warp yarns.

89. (Canceled)

90. (Canceled)

91. (Previously Presented) The implantable prosthesis of claim 79, wherein said third number of warp yarns includes a varying number of warp yarns.